Makers in the classroom

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Makers in the Classroom: Knowledge exchange through practice

Introduction and context

Craft education in the classroom

Craft education receives much attention in the current educational climate, but Yair (2012) explains there is less research on craft pedagogy within the UK context. This paper adds to the discussion of craft education in a Scottish educational context by highlighting a discontinuity between the rationale of the presence of craft and of how it is normally being realised, perceived, delivered and performed in school classrooms. This is irrespective, or even in contrast to, the fact that craft is the most popular activity in school (Houghton 2011).

Paradoxically, craft is deeply rooted in the Scottish school curriculum from its inception nearly four decades ago. Then, craft was considered to replace what design could not fulfil in the curriculum, like problem-solving skills, and it became hence a 'third culture' combining the more technical subjects and creative arts (SQA 1987).

At present, craft is taught in school as a practical skill using a broad range of materials. It attempts to achieve a work and life balance by developing more individual and transferable skills of the students (SQA 2012). The early perception of craft as being a medium to provide social learning via the curriculum (SQA 1987) still prevails when SQA[1] comments on the application of skills in everyday life. This includes working in shared collaborative environments as well (SQA 2012).

This deep-rooted perception of learning a craft for wider applications contradicts actual classroom practices in the Scottish curriculum. This is evident when the SQA expounds their aims of craft courses to be more product-centric. (i.e. National Level 2 practical craft skill course requires students to identify tools, materials, equipment and use skills, knowledge and technology as part of the production process). But Yair (2012) explains that the current educational climate in the West can be seen as driven by a variety of craft pedagogy models from process to outcome-oriented craft practices.

Hence we see a gap in how craft is being placed in the Scottish school curriculum, underlining the importance and relevance of deciding a methodology to accompany the teaching of craft. The need for this change in craft is evident when Education Scotland highlights the 'big issues' of practical craft skills, claiming there should be 'new angles' provided for craft education. These new angles centre around students being educated on their role of becoming responsible and active citizens whilst identifying the sustainable issues of the socio-economic environment (Education Scotland 2012).

In the present paper we provide examples of how this goal of becoming responsible individuals, aware of bigger issues through making, might be achieved by collaborating with craft practitioners from a making background that has retained its links with society and material in a more immediate way than is the case in the developed world.

Aware of the potential implications of craft education and its current status quo of practices, we could argue that the craft skills which are mostly associated with Western values and viewpoints of making, designing and handling materials do not fulfil what actual craft-making used to perform. Gardner (1990) explains that craft is about passing down the skills and knowledge to a new generation (cited by Sato 2010), suggesting we might need to review what we teach as craft in the West. If Gardner is still right, we might assume that current craft education of object-related making does not support the new demands of educating responsible citizens as much as it could.

The question to ask of craft education, therefore, is whether integrating creativity, cultural awareness, norms and practices of one's own and other cultures can be balanced with practical craft skills to allow forming an expanded awareness of the wider socio-cultural factors through making. As Pöllänen (2011) posits, the shift in craft education is now towards focusing on providing more general skills of learning through making rather than providing a specific material skill to students.

This cannot simply be achieved through a simplistic model of pedagogy, which only focuses on the making of the object, but requires a holistic approach[2] (Pöllänen 2009) which places the student in an authentic learning experience, and the use of holistic craft as a model for providing authentic learning is acknowledged well (*Scholarly Editions* 2012). However, Pöllänen (2011) also reminds us that achieving holistic craft-making has been regarded as somewhat difficult as it needs more direction on how to exploit it within the classroom.

Aware of the potential benefits authentic learning brings to learning situations (Herrington and Oliver 2000), and taking into account that students prefer practice-based learning (Russell-Bowie 2012), we have adopted in our study authentic learning with practical, hands-on working scenarios. We have considered what Lombardi (2007), as cited by Bohemia and Davison (2012), says about this form of learning as being applicable for close interactions, and we are basing our work on situated and cognitive learning theories which postulate 'learning in meaningful contexts' (Bohemia and Davison 2012: 136).

The project description

The research on which this paper is based formed part of a funded practitioner exchange project called ReSide under Creative Scotland's Creative Futures programme, Europe's largest coordinated residency and exchange programme. The residency took place between Heriot Watt University in Scotland and the National Institute of Design in India during autumn 2012 and spring 2013. Four artisans, makers and designers from the two countries not only extended their own practice through living in their host country for two four-week periods but shared their knowledge and experiences of craft-making by collaborating with other craft interest groups and institutions of the respective communities. In Scotland, one Scottish and two Indian participants visited two secondary schools in Scotland where they collaborated with students and teachers to share their cultural experiences of making crafts.

Through close observation of these engagements from various research angles we were able to explore how students, teachers and external practitioners respond to the connotations of multiculturalism and diverse creative craft practices. Specific attention was paid to identifying how students respond to live cultural exposures, whether they are able to expand their awareness beyond the immediate classroom contexts, and more. The paper therefore explicates how external collaborations could be used more meaningfully in the context of learning wider social behaviour through creative craft practices.

In doing so we effectively communicate a case study example for delivering authentic learning through face to face knowledge exchange (Lombardi 2007). As part of this we examine ways of adopting varied strategies such as authentic learning, cultural knowledge exchange and practiced based, holistic craft-making as part of craft education. We pay specific attention to the understanding of students' (re)interpretation and (re)production of creative work with respect to cultural influences in their broadest sense, thus providing an alternative perspective on how the above contextual issues are achievable in current educational practices.

Methodology

Makers in the classroom: The workshop

A workshop setting was deemed to be appropriate in enhancing the authentic learning experience, and also to sit well within the realm of a practice-based craft educational setting. When Herrington and Oliver (2000:1) describe the gap between formal education and 'real life learning' experiences we recognise what workshop settings could bring to this context in order to invigorate live, practice-based demonstrations as an alternative to Western perspectives on craft learning which might have disengaged people. As real-life learning still prevails in Eastern production of crafts, Houghton's 'negligence of traditional craft in the UK school curriculum' (Houghton 2011) is addressed.

For this purpose, one Indian maker from a traditional craft community and one Indian and one Scottish designer-maker participated in two craft workshop sessions. They visited two schools located in the Scottish Borders and shared their experience and knowledge on rich textile craft-making traditions of the Kutch region in Gujarat which also explored broader culture and aspects of life-styles. The Indian artisans presented their individual work and demonstrated how they had developed new design skills by being exposed to contemporary craft-making in Scotland. The Scottish participant demonstrated how her practice had been influenced by the making practices experienced first-hand while on exchange in Kutch, bringing materials that had inspired and directed that influence to the workshop. Students were thus exposed to a diverse and differentiated approach of Eastern making practices and Western approaches to contemporaneousness which we will discuss later in the paper.

The observation of the two workshops was planned to identify students' approaches to multicultural craft collaborations, to understand what methodology would add to existing craft learning practices to create a more dynamic learning environment within the classrooms that supported authentic and holistic craft experiences. From the outset, it was recognised that the 'experience of making' would be contextualised into a wider cultural experience by having multicultural actors in the workshop, that the link between 'doing' and 'knowing' would be potentially brought to life by having practitioners and their context leading the workshop (Herrington and Oliver 2000).

Thus the workshop was devised to let students understand what making is all about in real-life engagements, building critical knowledge on how it is technically performed, but adding how and why practices may differ.

Multicultural collaboration

Some understanding of multicultural and collaborative practices is desirable to provide a basis for our discussion. Driven by individual assessments schemes, a collaborative atmosphere is not widely supported or practised in classroom situations. Wenger (1999: 3) says that 'collaborating is considered cheating ... and institutionalised teaching and training is perceived by would be learners as irrelevant … feeling that learning is boring and arduous and that we are not really cut out for it.'

More recently, however, we are opting back into such collaborative educational practices with a view to creating life-sustaining experiences. Multicultural education provides students with real-life situations to understand very distinct cultural differences by comparing themselves to others (Delano-Oriaran 2012) because it breaks the barrier of self-centred thinking, allowing students to focus on the real-world relevance of issues (Clemons 2005). Thus Clemons (2005: 289) is implying that collaborative practices improve 'decision making' and 'social action skills'.

Furthermore, during the process of cultural knowledge sharing, the mutual knowledge exchange and dissemination of different cultural elements, history and traditions helps students move from one culture to the other via an easy transition process. As Stephanie Clemons further notes, 'bringing family heritage, traditions and cultural motifs into the classroom instruction can benefit individuals through improved educational experiences and subsequent academic success' (Clemons 2005: 290).

The understanding provided here through cultural collaborations makes students be 'cultural beings' (Anderson 2003: 64). This translates easily into seeing culture as an appropriate tool which complements holistic craft educational practices because 'all cultures have a visual dimension' (Clemons 2005: 290), and visual and technical components are key for holistic craft practices (Pöllänen 2009).

The sketchbook cover making

The participants of the classroom study included a total of twenty-one S2 and S3 Grade students between the ages of 12 and 13 from two secondary schools in the rural Scottish Borders, an area rich in textile history. It comprised a sample of ten female students studying Craft Skills and Textiles in Home Economics and a sample of ten female and one male student studying Art and Design. This mixed cohort of students was perceived to have a variety of skills with regard to hands-on craft-making which allowed researchers to observe and evaluate their approaches to practice-based making in response to cultural exposures and collaborative experiences by way of comparing pre, during and after workshop experiences.

To identify students' impression of the workshop experiences, and to decide the modes of delivery of practice-based education and the content of craft courses, we placed one group of students in a non-restricted design environment and the other group in a restricted environment. During the workshop we requested students to design a sketchbook cover to demonstrate their creative craft abilities informed by the cultural experience. The non-restricted workshop setting allowed students to choose whatever materials, colours, techniques and skills they wished to employ in their design and making process. In contrast the group of students in the restricted environment was asked to choose a colour theme prior to the workshop.

The students were then divided into sub-groups of three to four people in each group on a voluntary basis to identify their responsiveness to craft collaborations and to identify their cognitive and behavioural approaches in the making process, both individually and collectively.

This categorisation of the modes of delivery was to determine the educational needs and the interests of students and teachers in actual learning tasks, as well as the concerns for effective engagements by makers during craftwork.

Data gathering methodology

The data were gathered on a qualitatively driven mixed method approach where use of observatory, participatory and narrative techniques was employed. This included visual data gathering through photographs and video recording, creative interviews and semi-structured interviews and live engagements with students' creative design work.

A choice of comprehensive techniques allowed capturing students' feelings towards craft-making activities beyond their cultural borders. This included their perception and impression of the kind of information they found useful and constructive to build a holistic and authentic craft learning experience. The techniques also helped to identify students' perception on craft's usefulness in expanding it to cross curricular learning, and their engagement with professionals outside the school. Students were questioned on three schemes: a) design of the workshop, b) impact of the workshop on students' creativity and awareness of culture and craft, and c) usefulness for future craft engagements.

The workshop presentation

The three makers who participated in the workshops demonstrated their traditional and original work specific to the community and culture, as well as work produced during their residency. They explained how they had been influenced by exploring a different set of culture practices. This part of the workshop included providing the students with first-hand experience to have a closer look at the traditional artisanal products, at making skills, and a reflection on how they have contemporised them. The experience allowed students to explore what traditional and contemporary making means in the craft context with regard to geo-demographic differences and similarities which go beyond their classroom learning.

The demonstrations included Murji Hameed Vankar, a traditional Kutchi artisan, showing his weaving techniques and explaining the choice of materials and colours. He explained how textile crafts have been re-established as a dominant player in their livelihoods as well as a distinguishing feature in identifying communities and sub-communities. Students realised how and why crafts are inextricably bound to a particular culture and the way in which the community systems and hierarchies are organised, e.g. strict gender participations around the process of making. They questioned these aspects of making which go beyond the object level when artisans explained these socio-cultural relationships.

> These Rabari[3] women, their hands are incredibly rough because they do these house works, and then they do the smooth work with the needle. (Lindsay Roberts, Scottish designer-maker)

> They start training their children since they were kids and a lot of it is the dowry. They do it for a long period of time. (Swati Unakar, Indian designer maker)

Swati Unakar, being a contemporary designer with traditional knowledge on silk-weaving techniques, explained her own creations with a detailed story of silk production techniques of Bangalore where she originally comes from. This accompanied her exploration of Kutch textile traditions as a Gujarati-speaking practitioner and a researcher in mixing the fine silk production techniques with the very geometric, coarse but vibrant Kutchi styles.

Lindsay Roberts, the Scottish designer maker, unveiled her own stories of Eastern making through her Western lens, drawing similarities and differences of the Scottish and Indian cultures. She went on to explain the most painstaking Bandhani work[4] as well as the unusual Rabari mirror-attaching techniques. She explained 'one person does the tying and the other does the dying and another community attaches mirrors'. These stories elaborated the concept of a traditional community of practice to the students without forcefully trying to explain what it is.

Through this presentation with varied examples, students identified the differences in cultural roots, acknowledging and respecting those differences. Lindsay Roberts drew comparisons between Scottish culture and the culture of making in Kutch. She said: 'each community has different ways of stitching which is identifiable in Kutch craft work. It is like different clans having different tartans here in Scotland.' Students posed questions about the surrounding stories of the particular crafts, asking more about the history and the reasoning. The viewpoints they held on collaborative engagements revealed the workshop experience was a meaning-making session rather than mere object-related making.

Findings and discussion

Cultural exposure and awareness within object level of making

Knowledge on new craft skills became a significant part of student learning gained during this object level of making. Students were inspired by the

basic technical skills and rethought their practices of how they used colours and materials in terms of the range and the breadth of use. During the workshops students attempted to go beyond their usual classroom learning practices by exceeding the use of a basic set of patterns and design theories. The craft students, for example, integrated different making skills to design the sketchbook cover in hand-stitching techniques, block printing, fabric painting, appliqué, patchwork and so on. And the art and design students stepped away from their usual design and making by playing with colours and patterns. They also tried experimenting with stitching as well as using mixed media as seen in Indian examples.

The students were able to use the basic knowledge of patterns, texture, colour, form and materials to express their understanding of a particular culture, thereby establishing connections with the more hidden or hard to recognise contextual stories underlying this material expression.

Their representation of work varied when they were presented with a cultural experience in that we saw strong commitments to using craft as a means of cultural expression as exemplified by several participant statements:

Kane, an art and design student, got inspired by the story telling of the silk production technique by Swati Unakar: 'I remember the silkworm, so I thought to make a silk story.'

This form of object-related making through narrative stories triggered students' deeper explorations of the culture and making which in turn heightened their making abilities. This is discussed in detail in the next section (see Figure 1).

Image 1 Silk worm cover by Kane

Another art and design student, Bethany, got inspired by the vibrant colours and techniques used in shawl-making by Murji Vankar. When he explained how women in his family make the tussle work by hand once he finishes the weaving, this collective experience allowed the student to build deep understanding through making (see Figure 2). Says Bethany:

> I really like the bright colours and I think it really stands out when you've got so many other colours. I like the different patterns and also I have got these little bling blings (showing some mini bells) – I think they are quite pretty. I have heard about the Indian culture before in the geography class but there we don't quite learn about weaving or how different kinds of men and women do the weaving and work together on the same craft. We watched some videos on India but we didn't do much material stuff and also we didn't meet anyone or see for real how people dress and all that in other cultures.

Image 2 Tassel work by Bethany

It is also worth noting in this example how students tended to form a comprehensive awareness by cross-relating their making experience with previous learning or experiences. It confirms that education can result in deeper learning when including practice-based work or making. Hence we see an emergence in authentic learning experiences where they successfully recognise and understand different aspects of learning tasks that bear relevance to their life or practice through which they develop meaningful and refined knowledge. This is what Guiller et al. (2008) emphasise when calling authentic learning multidimensional (cited by Bohemia and Davison 2012).

Awareness beyond object level of making

Holistic craft-making believes in the use of creative techniques to stimulate the making process by generating more ideas (Pöllänen 2009). We observed that the method of narrative storytelling was effective as it provided students with a better picture than verbal explanations. When students were given the chance to experience how people of other cultures dress and behave in a live demonstration, a multisensory approach to their design work was instigated (see Figure 3).

Image 3 Swati Unakar demonstrating Rabari traditional dress

Students applied the techniques they learnt beyond the original object level of making by extracting and developing it while concentrating on interesting features and applying it as a concept to their own object's story. These narrative stimuli correlated with students' previously seen or experienced events and with the immediate learning of the workshop. This was reflected in their work as they tried to express this through a collection of memorable cultural experiences, combining the more disparate events that have taken place elsewhere, outside class rooms to form an effective learning practice. This is part of the holistic learning which (Pöllänen 2009) mentions.

Lorraine, an art and design student, explained how she constructed knowledge and expanded her awareness by reflecting on other similar learning practices through appreciation:

> I went to Turkey where they make these beautiful carpets, and it is a bit like this. The way they make things is quite same. Because they are kind of unique each and every piece is unique.

Students learnt entirely new things which created a rippling effect towards a wider social circle as the researchers received interesting feedback from students' friends and family weeks after the workshop. This strong and lasting impact enhanced students' continuous engagement with the craft leading to innovation.

Mel, a textile and craft student, leant more keenly about Kutch traditions and craft-making. Responses received directly from her mother indicated: 'my daughter has been well into the workshop and focused. When she came back from school that evening she was so impressed. She said the man was wearing something he made. And she kept on stitching a mirror to the fabric that whole afternoon.'

This reinforced their reflection of things learned on their (Western) society, especially the ideology of Eastern craft making through community of practice, as something that intrigued them sufficiently to practise within their own communities.

One student commented: 'My mum makes handmade craft items. I was never interested in learning from my mother. But now I know how important it is and how interesting it could be.'

Another student said, 'I think it is kind of cool that they are kind of passing it down through their family. Because we have some stuff here (in Scotland) but like it is not as they are taken so strong (serious) or well-kept as the fabric and weaving and everything in India.'

The interview data analysis indicated that students had developed a sense of deeper and wider appreciation of other cultures, craft skills and developed a fondness for handmade products. Most importantly they learnt not to treat or consider other cultures and people as 'exotic aliens' (Anderson 2003: 64). They understood that hand crafted items have more value than what they see in fast fashion in the Western culture and also as something truly appreciative as it is being made by sweat, memory and emotions. This depicts Frayling's view, as cited by Houghton (2011: 180), that craft teaches us the 'value over the quantity'. Various answers indicated this sense of appreciation:

> I think they are really hard to make and take a lot of time … really hard …
>
> I think those people must be quite enjoying making that work … and they are really imaginative.

> You know these people put a lot of effort in it and they try to make it look as good as they possibly can.
>
> 'They must have long [sic] patience to try and make it over a long period of time, maybe days and weeks and years.

Placing the student in a real life-situation allowed them to evaluate an authentic experience and be aware of the making process. This improved students' problem-solving skills, creativity and innovation.

> It is quite cool because we can learn more them. We can use it differently in future. I like to do something with art and on different cultures.

We also observed a positive take on this collaborative experience. When the students struggled in understanding a process or a technique, peers of their groups volunteered to help. This collaborative, cohesive and dynamic environment naturally developed into a community of practice. Within those small groups students started to learn from one another. The one who achieved an easier method shared the process and techniques with others. Unconsciously they formed self-help groups, and this allowed the teacher and expert maker to let students lead their own groups without much intervention. Students appreciated each other's work and it reinforced their relationships whilst creating a strong and stable classroom environment for teaching and learning.

> I like working in groups because they help me. I know I am not the best in doing things so my friend corrects me and you can get better ideas and of course get the chance to blend ideas.

Discussion: The restricted and non-restricted design context

Putting the students in a restricted and non-restricted design environment led us to observe and identify many useful cognitive and behavioural approaches towards creativity, innovation and their design process, especially with an approach to how craft education could be linked up with external engagements and provide authentic learning practices. We saw that students acquire many skills when placed in a situation which triggers curiosity and spontaneity, and that they best respond to the external engagements in that way.

'Today's workshop is good because you are not planning it or anything but you work towards an end result as you go' commented one student who was from the non-restricted design class. So it proves that holistic craft experiences are achievable through interactive and collaborative craft-making engagements.

The students in the restricted design environment tended to focus on their materials and were disengaged from the immediate leanings of workshop experience. Their design outcome showed less inspiration taken from the Indian culture when compared to the non-restricted group (see Figures 4 and 5).

Left: Image 4 non-restricted workshop
Right: Image 5 restricted workshop

This gives us a hint that working on a colour theme, though believed to be one of the key features of design education, might not work well, especially in a knowledge sharing context in cultural crafts. Thus we identified colour as one of the important cultural expressers or identifiers apart from materials, techniques, patterns and forms.

Working in a non-restricted design environment and developing what they see in the classroom instantly provided students with enhanced clarity in their design work and added cultural relevance. They tended to evaluate their designs and processes on-site without any pre-conditions, and this intrigued them to get more inspired by external engagements. We conclude that this fuels multicultural collaborative practices in providing holistic craft experiences as students could easily align their previous experiences and the immediate engagements to the entire learning process (see Figure 6).

Image 6 combining learning skills in non-restricted workshop

In a more behavioural approach we also observed these students to be engaged more than the students in the restricted classroom as they tended to believe it would get them more inspired and was truer to the process if there was more constructive feedback coming from practitioners, whereas the restricted group of students had to struggle applying their pre-sourced materials and colour themes onto the sketchbook cover design which might clash with their workshop experiences by not giving them space and time to engage with the artisans, teachers and other students.

Authenticity and multicultural craft collaborations

Herrington et al. (2003) mention ten characteristics of authentic learning including: real-world relevance, defining tasks and sub-tasks to complete a task, investigating a complex task over a period of time, examining tasks from different perspectives, opportunities to collaborate and to reflect, applying learning cross-subject and beyond subject areas, ability to integrate with assessments, creating a polished product, competing solutions and diversity of outcomes. We identified most of these characteristics in our workshops despite not carrying them out over a period of time as is normally the case.

The workshop project delivered most of the outcomes and contributed to our knowledge of craft in an educational setting. In this paper we have used the term authentic learning within a craft context to explain the process of learning while observing and practising the knowledge acquired through a cultural engagement. This is achieved by being truer to the original context of learning and re-producing and re-interpreting while reflecting on students' previously used skills in the classroom and applying the learning on wider applications. The presence of makers in the classroom helped in achieving such learning in various ways.

The use of narrative methods, e.g. by showing the students how Rabari women wear their traditional dress, explained the stories related to culture including dress codes, detailed making process and the involvement of the community in making such textile crafts. The use of a haptic mode of learning was influential in the authentic learning process especially, in sharing cultural knowledge. Students had the chance to actually touch each and every product and compare the materials, techniques, and experience the depth of the skills involved. This allowed them to learn in a personally preferred manner by being truer to themselves as experiences were triggered by interest rather than being imposed. There is some evidence that lasting memories have been produced which spread across social contexts and into other subject areas, allowing them to apply knowledge in different contexts and experiences. 'This is much funner [sic]. I like it more than my geography or science classes' commented one student.

Further research might focus on longer-term workshops between varied student and practitioner populations to further validate the preliminary findings of this case study.

Notes

1. SQA – Scottish Qualifications Authority.
2. The concept of holistic craft-making is introduced by the Finnish National Core Curriculum. Pollanen (2009) describes it as a making process by which the maker/student is involved from brainstorming of the idea to the final making of the product, giving him the authority and initiative to take active decisions and also to experience the entire making process.

3. Rabari is an embroidery technique which is practised by women of the nomadic Rabari community. They use mirrors of varying shapes which are attached on to the fabric via different decorative stitching.

4. Bandhani is a form of tie-dye technique seen in Gujarat.

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